SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
On Track - Undergraduate And Postgraduate Space Education (2)

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SCENARIO BASED TRAINING FOR NATURAL DISASTERS

Abstract

During recent years, numerous catastrophes occurred. Earthquakes, fires, volcano eruptions or tsunamis have one thing in common; it is difficult to be prepared for them. In the last years more and more space based earth observation have become valuable assets in these cases as it allows providing information about the size of the problems world wide, very quickly. One problem is that natural disasters are unpredictable. The other problem is that helping in such a situation requires many different capabilities. First aid, fire fighting are things we know about, but remote sensing is quite new and quite different and is therefore not really integrated in the aid process.

One of the core issues in this situation is the habits and the mind set of the involved people. If people are not aware of what others can do or need then things can go wrong. Especially remote sensing capabilities and limits are quite often unknown. Scenario based training can change this as all parties involved in the aid process can see what the space asset can provide and how it supports the process. Only if the use of remote sensing is in the mind of people, it can be efficiently used.

The question is when is the best time to get used to it? If children of today get used to the idea to use remote sensing and understand its purpose, value and limits, they will use it as adults. This approach has three advantages, the students would learn how to solve a task in a co-operative manner, they would gain some initial experience of what such a situation requires and finally they would learn much more about the remote sensing aid process. As a side effect it might create more volunteers for these aid process related professions.

VEGA has developed a tool called the Spacecraft Operations Training Centre, which is one element for scenario based training. It is based on research-based strategies. Its application to space systems and Earth observation is producing interesting results, such as well prepared spacecraft controllers for ESA. VEGA and several partners currently produce a scenario-based learning environment for secondary students based on a disaster scenario. This training includes the space asset and other assets of the aid process. The aim of the paper is to describe the approach and present initial results.